

EXPLORE EMBROIDERY AND WEAVING TAPESTRY WITH SHIBORI TECHNIQUES ON OUTER READY TO WEAR CLOTHING

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ABSTRACT

The discussion of this research is based on how to explore embroidery techniques and tapestry weaving techniques in ready-made garments with an exploration of shibori technique in the textiles to be used, so that they can provide greater value in educating fashion users to reduce the problem of textile and fashion waste pollution. This study uses an experimental method, namely a research method that explores processing and dyeing techniques for natural fibers and uses the design thinking phase, which consists of five phases, namely Empathize, Define, Ideate, Prototype, Test. The research design used a t-test as an experimental design. The data collection was done by literature study in journals, books, articles and internet. In this study, the design is limited by the use of natural fibers in the form of cotton fabric and the use of natural dyes (Secang and Jambal). The product design is limited to wearable outerwear products that have a simple design but are still in line with current trends. The results of this study are fashion prototypes using embroidery techniques and tapestry weaving with the shibori dyeing method applied to ready-to-wear outerwear using natural fibers as cotton fabric material.

Keywords: Fashion, Weaving, Tapestry, Shibori Technique, Ready To Wear

INTRODUCTION

The development of fashion trends in Indonesia has increased significantly due to various things, such as the existence of technology and information that is constantly evolving. With the development of fashion today, most people try to compete to keep up with the trends, not to miss the lifestyle, especially women. Fashion that is constantly changing and following trends is always a concern of the times. Fashion designers play an important role here to increase the interest of people who dress fashionably, because the more unique and different style from others, the higher the attractiveness of the community and the more they become a highlight among fashion fans.

The most important fashion that people are interested in is clothing, because along with lifestyle, clothing is a basic need that is always connected to the body. Initially, fashion had a function only as a body covering, but with time and the development of technology, the function of fashion began to change. Fashion has always been associated with textiles. In general, the term textile is often equated with the term fabric, but in fact textiles and fabrics are 2 different things. The fabric itself is a finished product and only a part of the textile itself, because textiles are materials made of woven yarn and formed by embroidery, sewing and binding. Other examples of textile products are tapestry weaving, embroidery or embroidery, batik, knitting and so on. Tekstil is very diverse, starting from the shape, material, color and type of construction.

In Indonesian fashion, the technique of tapestry weaving is not commonly used as a decorative element for clothing. This is because woven tapestries are generally used for home decoration. Therefore, it has the potential to be developed for fashion products. The development of the idea of weaving with tapestry increases the value of more than fashion, so the research chosen to make fashion ready-to-wear fashion with the addition of elements of embroidery techniques and the use of shibori dyeing with natural dyes. The sustainability of the environment and nature is very important for the life of living beings on earth. Man as a caliph on earth is obliged to preserve it. If you do not

preserve nature, there will be damage that will lead to natural disasters. One of the efforts that can be made is to update science to support the growth of the world of education and the industrial world while preserving nature. One of the steps that can be applied in the fashion world is textile dyeing, which uses environmentally friendly materials and the dyeing waste does not pollute the environment. In the dyeing process, the youngest or lightest color is started with the first dyeing (Keller, 1971: 56).

Making from nature raises awareness of the environment and what can be used from objects in the environment, especially natural elements that are no longer used and their potential that can be developed, especially in the field of fashion.

The potential of the environment around the community must be properly harnessed, for example, by turning it into a saleable product to increase people's income. Identifying the potential of natural resources and the environment around the community must be based on local wisdom to support government programs for proper and sustainable management of natural resources and the environment (Fadhil, n.d.).

The use of materials comes from natural materials, namely cotton fabrics, cotton fabrics themselves are used by almost everyone in different types and characteristics, so it can be said that cotton fabric is a fabric that makes a great contribution in human life. In addition, cotton fabric is a good alternative because of its cheap price.

With this background, the author tries to conduct experiments to update the tapestry technique for outerwear made of natural materials to preserve nature. In this way, the problems that arise can be identified, namely how an exploration of the embroidery and weaving techniques of tapestry on ready-made garments can be accompanied by an exploration of shibori dyeing on textiles that are used, so that it can provide greater value in educating wearers about fashion and craft.

The limits of the problems in fashion design are limited by the use of natural fibers in the form of cotton fabrics and the use of natural dyes (secang and jambal). Product designs

are limited to fashion products that are suitable for external appearance and use simple designs, but still in line with current trends.

The aim of this study is to produce ready-made garments using embroidery and tapestry weaving techniques with the shibori dyeing method applied to off-the-rack outerwear, using natural fibers from cotton fabrics. This is aimed at reducing environmental pollution and educating the public to be more conscious in their consumption of fashion products.

METHOD

This design uses an experimental method, namely a design method that explores processing and dyeing techniques on natural fibers. The variables of this study are Bound variables: the finished result is outer in terms of aspects of feed, usability, size and harmony with the design. Free variables : tapestry with plain, soumak, knot, rya loop and diagonal slit techniques. Control variables: weave used for tapestry making, cotton fabric color, outer design, standard size one size. The research design uses a t-test experimental design. The data collection carried out includes, among others, literature studies through journals, books, journal articles, and the internet.

The data collection method in this design is conducted through observation/interrogation and analysis of the literature study data as follows:

a. Literature study

Collection of data from various research sources, both books and journals, on the subject of tapestry weaving on clothing

b. Interviews

Conducting interviews with stakeholders such as Mrs. Dewi Werdayani on the topic of embroidery and tapestry and Mr. Komarudin Kudiya on natural dyes and shibori techniques.

c. Design thinking theory (Ford, 2010)

In Ford's opinion, the application of design thinking theory is more oriented to the flow of the phases of creation/design of a craft and design work, which consists of the following five phases:

1. Empathize.

Empathize is the phase that involves gaining an understanding of the empathy of the problem to be solved. In this phase, the designer/creative researcher seeks a client with a real object and then studies the user and finds the object through empathy, observation, interviews, literature studies, and typologies of existing similar objects.

2. Define.

Define is the process of identifying problems that are more focused and detailed. In this phase, the designer/researcher finds and/or sharpens the focus of the problem through a process of in-depth analysis, programming, and problem identification by producing

- a. Analysing user needs, solutions, and innovations to work on.
- b. Design framework, as a summary and formulation of the results of the initial analysis .
- c. Problem statements and general concepts, as formulation of the work to solve design problems.

3. Ideate.

Ideate means that the designer / creation researcher formulates ideas through brainstorming using the mind mapping method to produce them:

- a. A design concept that can underlie all design implementations
- b. Filing of design transformations, namely from abstract images to concrete images (shape implementations) with several possible orders, e.g., by drawing in the style of life or with a computer.

4. Prototype.

Prototype means that the designer/creative researcher works on the spatial study process of 3D model implementation (modelling) and working drawings to create design decisions and final design presentations.

5. Test.

Test means that the creative designer/researcher presents the phases of the idea to the prototype that has been created to get feedback from other people, estimators, consultants, and customers. In this phase, it is hoped to redefine the focus of the existing problems of the product and its users, solutions and innovations. In other words, this phase is more

focused on testing the quality of the product, effectively and purposefully.

RESULTS AND DISCUSSION

Design Concept When designing a work, the first thing that is established is the design concept so that the rest of the process proceeds accordingly. The design concept used in this design is adapted to the problem that often occurs when techniques are used as decorative elements in clothing.

With the development of fashion industry, fashion now not only acts as a body armour, but also becomes an aesthetic value for the wearer, identity and lifestyle. Therefore, most people try to keep up with the trends so as not to miss their lifestyle. Fashion consumption is increasing from time to time, which encourages industry players to meet the needs of the market.

The large number of market demands has led to the emergence of fast fashion brands that produce massively. Fast Fashion is a term used in the textile industry, which produces various clothing models that are constantly and rapidly changing, and also uses low-quality raw materials, so they are not durable. This is related to fast fashion, which is one of the biggest generators of waste in the fashion world. As Aretha Aprilia, an expert in waste and energy management, explains, people's consumption habits regarding clothing contribute to the accumulation of clothing waste. Usually, these brands use synthetic dyes and textiles that can pollute the environment because it is easier and cheaper.

Based on these considerations, the author has designed a product that is not only considered from a functional and aesthetic point of view, but also as an educational medium for the public to save the earth by using environmentally friendly products, such as eco-friendly fashion products. The problem of fashion waste is an inspiration for exploring the decorative variety of designs applied to the surface of fabrics as an educational medium.

Theme Design

The design theme used in this design is in line with the



Figure 1. Fashion fashion design moodboard

Source : Personal documentation, 2022



Figure 2. Stages of the staining process

Source : Personal documentation, 2022

theme related to an update of tapestry weaving technique —in relation to the application of fashion products, namely the expansion of fashion products and the addition of references and input for art and textile design to the variety of craft techniques in ready-to-wear outerwear.

Based on the above explanation, the chosen design theme is “renewal”, which means renewal. Thus, renewal can mean an extension or renewal of textile craft techniques in a broader sense.

Design Process

A. Natural coloring experiments

1. Stages of the Natural Coloring Process

a) Scouring

The process of cleaning or removing dirt residue from tissue.

b) Mordanting

The process of opening the pores of textile fibers so that plant dyes can be easily absorbed by / adhere to the fabric.

c) First color immersion

The process of dyeing the fabric in a color solution.

d) Immersion of the second, third and so on colors

The process of re-dyeing the fabric in a dye solution to obtain an older and sharper color.

e) Fixation

Color strengthening/locking process.

- Secang Dye

- Jambal Dye

Fixation	composition	Types of material	
		Cotton	rayon
Soda Ash	1 liter of water 50 grams of dye 10 grams of fixation		
tunjung	1 liter of water 50 grams of dye 50 grams of fixation		
	1 liter of water 50 grams of dye 10 grams Fixation		

Alum	1 liter of water 50 grams of dye 10 grams Fixation		
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Table A.1 Exploration of secang dye solutions
Source : Personal Documentation, 2022




Fixation	composition	Types of material	
		Rayon	
Soda Ash	1 liter of water 50 grams of dye 10 grams of fixation		
tunjung	1 liter of water 50 grams of dye 10 grams of fixation		
alum	1 liter of water 50 grams of dye 10 grams of fixation		

Table 2. Exploration of jambal dye solutions
Source : Personal Documentation, 2022

Engineering exploration

1. Tapestry weaving technique

The tapestry techniques used include plain, soumak, knot, rya loop techniques. The plain technique serves to produce a simple and neat appearance, while the soumak, knot and rya loop techniques serve as creating a texture.

b. Embroidery techniques

Embroidery is inseparable from the basic elements used, such as spikes, trace stitches, stems, ocials, chains, flannels, crosses, flattened and others (Derosya, 2018).

Here's a look at the stab on embroidery:

- Stab Jelujur
- Stab Piercing Traces
- Prick Festoon
- Prick Flannel
- Stem Piercing
- Chain Piercing
- Cross Prick



Figure 3. Tapestry Weaving Technique
Source : Personal documentation, 2022

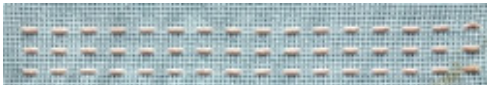


Figure 4. Tusuk Jelujur

Source : Personal documentation, 2022



Figure 5. Piercing Trace

Source : Personal documentation, 2022



Figure 6. Prick Flannel

Source : Personal documentation, 2022

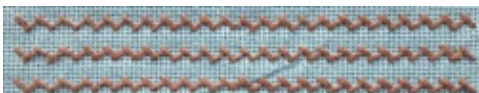


Figure 6. Prick Flannel

Source : Personal documentation, 2022

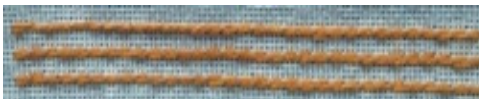


Figure 8. Stem Piercing

Source : personal documentation, 2022



Figure 9. Chain Piercing

Source : Personal documentation, 2022



Figure 10. Cross-Prick

Source : Personal documentation, 2022

- Stab Zigzag
- Open Chain Prick

Application of Works according to Function

1. Color

The color chosen represents different types of earthy colors, namely taupe and some of the light brown colors have hints of gray-brown tones that give a relaxed and calm impression.

2. Fabric Material

The basic textile material chosen is made of natural fibers, namely cotton. Cotton is a part of the type of fabric that comes from the cotton plant, or the Latin name is "gossypium" Cotton fabric ranks first among the most produced textile raw materials. This is because cotton fabric does not heat up and can absorb sweat well.

3. Natural coloring materials

To present colors consistent with the 2021/2022 trend forecast theme of spirituality, describe a changing mindset based more on the values of tradition, culture and appreciation of the work process. Contained in a classic elegant style with a touch of exotic ethnicity. Natural materials, motifs and traditional textiles, detailed details of handwork are presented in fashion with high technical standards and quality in neutral and earthy tones. (Fashion Trend Theme 2021/2022, p. 17) The color chosen comes from the Secang plant. Secang bark yields a taupe color with tunjung fixation.

4. Design sketches

F. Final Products

Conclusion

Based on the above explanation of design, it can be concluded that the most important fashion that people are interested in is clothing, because in addition to lifestyle, clothing is a basic need and is always worn on the body, and clothing is made of textiles, textile products themselves such as tapestry weaving, embroidery or embroidery, batik, knitting and so on. In Indonesian fashion, the technique of tapestry weaving is not often used as a decorative element for clothing.

Making from nature raises awareness of the environment and recognizes what can be used from objects in the environment, especially natural elements that are no longer used and their potential that can be developed, especially in the field of fashion. The potential of the environment around the community must be properly exploited, for example, by making it a saleable product that increases people's income.

Functions, techniques, materials and esthetics play an important role in textile design for ready-made garments. The design theme is visualized in the textile by exploring tapestry and embroidery techniques applied to the fabric surface. The design theme is implemented in the design of women's clothing with shibori dyeing from natural ingredients on the textiles, namely "renewal", which means renewal. Thus, renewal can be an extension or renewal of textile craft techniques in a broader sense.

The chosen textile base material consists of natural fibers, namely cotton and also natural dyes. These natural materials are combined to further enhance the value of each material used. In the visual arts, color can mean a certain reflection of light, which is affected by the pigment on the surface of the objects "earth tone" the color of earth tones is the chosen color.

Natural materials and detailed handcrafted details are showcased in neutral and earthy tones with high technical standards and quality. The color chosen comes from the secang plant, the secang bark gives a taupe color with tunjung fixation. The technique used to apply the motifs to the surface of the fabric is embroidery.

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Figure 11. Stab Zigzag
Source : Personal documentation, 2022



Figure 12. Open Chain Piercing
Source : Personal documentation, 2022



Figure 13. Selected colors
Source : personal documentation, 2022

Fixation	The composition of fixation
The composition of the dye	<ul style="list-style-type: none"> • 5 liters of water • 50 grams of dye
Process	Extract
The composition of fixation	<ul style="list-style-type: none"> • 5 liters of water • 10 grams of fixation
Immersion time	10 times immersion

Table 3. Immersion process and composition
Source : Personal Documentation, 2022



Figure 14. Mockup design and outer size

Source : personal documentation, 2022



Figure 15. Visualization of the Outer with Embroidery and Tapestry Weaving using the Shibori (kanoko) technique

Source : Personal documentation, 2022

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